Recovery Plan Action Status

Plan Name: Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area

Plan Status: Final Plan Date: 30-Sep-98 Lead Agency: USFWS

Lead Office: Sacramento Fish And Wildlife Office 414-6600)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus iiburonensis), Metcalf Canyon ewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus elenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum atilobum), Coyote ceanothus (Ceanothus (Ceanothus (Ceanothus ierrisae), White-rayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thornmint (Acanthomintha obovata ssp. dudtonii), Santa Clara Valley dudleya (Dudleya (Dudleya (Dudleya (Dudleya (Dudleya (Dudleya (Streptanthus dudleya (Dudleya (Dudleya (Streptanthus dudleya (Dudleya (Dudleya (Dudleya (Streptanthus dudleya (Dudleya (Dudleya (Streptanthus dudleya (S	2	1.1	Establish cooperative programs with participants from the public and private sector	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Internal Technical Assistance	Cooperative program established with Stuart Weiss and San Mateo Parks for reintroduction of Bay Checkerspot into Edgewood Park.

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Bay checkerspot butterfly	2	1.2.1	Develop and implement outreach	Not Started			U.S. Fish and Wildlife Service	Other: Information and Education	Internal Technical Assistance	
(Euphydryas editha			plans				Wildille Service	and Education	Assistance	
bayensis), Tiburon			piaris							
mariposa lily										
(Calochortus										
tiburonensis),										
Metcalf Canyon										
jewelflower										
(Streptanthus										
albidus ssp.										
albidus), Pennell's										
bird's-beak										
(Cordylanthus										
tenuis ssp.										
capillaris), San										
Mateo woolly										
sunflower										
(Eriophyllum										
latilobum), Coyote										
ceanothus										
(Ceanothus										
ferrisae), White-										
rayed pentachaeta										
(Pentachaeta										
bellidiflora),										
Presidio clarkia										
(Clarkia										
franciscana),										
Fountain thistle										
(Cirsium fontinale										
var. fontinale),										
Tiburon paintbrush										
(Castilleja affinis										
ssp. neglecta),										
Marin dwarf-flax										
(Hesperolinon										
congestum),										
Tiburon jewelflower										
(Streptanthus										
niger), San Mateo										
thornmint										
(Acanthomintha										
obovata ssp.										
duttonii), Santa										
Clara Valley										
dudleya (Dudleya										
setchellii)		1						1	1	

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Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Metcalf Canyon jewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum latilobum), Coyote ceanothus (Ceanothus (Ceanothus ferrisae), White-rayed pentachaeta bellidiflora), Presidio clarkia (Fanciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thornmint	Action Priority #	Action # 1.2.2	Description Develop and	Ongoing Not Current	FY 1995 - FY 1999	Date		Work Type Other	Internal Technical Assistance	Action Comments
(Acanthomintha obovata ssp. duttonii), Santa Clara Valley dudleya (Dudleya setchellii)										

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Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Metcalf Canyon jewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum latilobum), Coyote ceanothus (Ceanothus (Ceanothus (Forisae), White-rayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Franciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thornmint (Acanthomintha obovata ssp. duttonii), Santa Clara Valley dudleya (Dudleya setchellii)	2	1.2.3	Encourage and assist counties and landowners to develop and implement Habitat Conservation plans	Ongoing Current	FY 1995 - FY 1999		San Mateo County, California, Stanislaus County, California, Marin County, California, San Francisco County, California, Santa Clara County, California, Contra Costa County, California, Alameda County, California, Sonoma County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game, Private landowners	Management: Planning	Internal Technical Assistance	Santa Clara County is developing a HCP.
Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger)	1	2.1.5	Secure and protect serpentine habitat on Tiburon Peninsula Middle Ridge (Marin County) for multiple species	Not Started			City of Tiburon, California, Marin County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: Easement	Internal Field Assistance	

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Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger)	1	2.1.7	Secure and protect serpentine habitat in St. Hilary's area (including Harroman Property) for multiple species	Not Started			Tiburon Landmark Society, Marin County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: Easement	Internal Field Assistance	
Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Metcalf Canyon jewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum latilobum), Coyote ceanothus (Ceanothus ferrisae), Whiterayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Clarkia franciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thornmint (Acanthomintha obovata ssp. duttonii), Santa Clara Valley dudleya (Dudleya setchellii)		3.1	Develop and implement appropriate management actions at multiple sites, for multiple species	Ongoing Current	FY 1995 - FY 1999		California Department of Parks and Recreation, California Department of Transportation, City of San Jose, California, City of Tiburon, California, East Bay Regional Park District, Marin County Open Space District, Midpeninsula Regional Open Space District, Midpeninsula Regional Open Space District, Rancho Santa Ana Botanic Garden, San Francisco Water Department, Tiburon Landmark Society, University of California at Berkeley, San Mateo County, California, Marin County, California, San Francisco County, California, San Francisco County, California, Santa Clara County, California, Contra Costa County, California, Contra Costa County, California, Santa Clara County, California, Contra Costa County, California, National Park Service, U.S. Fish and Wildlife Service, California Department of Fish and Game, Private landowners	Management: General	Internal Field Assistance	Staff from Creekside Center for Earth Observation working with Santa Clara Open Space Authority to develop new monitoring protocol for Dudleya setchellii. Invasive plants are being removed from Cirsium fontinale var. fontinale populations at Stulsaft Park and CalTrans property near Woodside Glens.

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Tiburon mariposa lily (Calochortus tiburonensis), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger)	2	4.2.18	Conduct surveys in historic and potential habitat on Tiburon Peninsula (Marin County) for multiple species	Not Started			City of Tiburon, California, Marin County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	

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Tiburon paintbrush (Castilleja affinis ssp. neglecta), Tiburon jewelflower (Streptanthus niger)	2	5.11	Conduct necessary research at Middle Ridge, Tiburon Peninsula (Marin county) for multiple species	Not Started			City of Tiburon, California, Marin County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Management Techniques	Graduate Student	
Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger)	2	5.13	Conduct necessary research at St. Hilary's area (includes Harroman Property), Tiburon Peninsula (Marin County) for multiple species	Not Started			California, Marin	Research: Demographic Studies	Graduate Student	